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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/690,873	10/21/2003	Baogen Wu	P1080US20	6829

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GENOMICS INSTITUTE OF THE
NOVARTIS RESEARCH FOUNDATION
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EXAMINER

COPPINS, JANET L

ART UNIT	PAPER NUMBER
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1626

NOTIFICATION DATE	DELIVERY MODE
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05/03/2007

ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

IPLegal@gnf.org

TH

Office Action Summary	Application No. 10/690,873	Applicant(s) WU ET AL.	
	Examiner Janet L. Coppins	Art Unit 1626	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 27 February 2007.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-41 is/are pending in the application.
- 4a) Of the above claim(s) 5-22 and 39-41 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-4, 23-27 and 38 is/are rejected.
- 7) ☒ Claim(s) 28-37 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claims 1-41 are pending in the instant application.

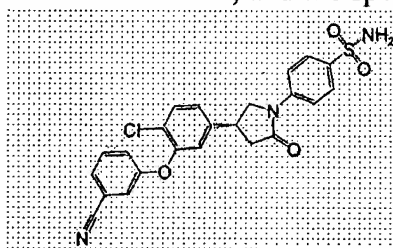
Information Disclosure Statement

1. Applicants' Information Disclosure Statement (IDS), submitted November 21, 2003, has been considered by the Examiner. Please refer to the attached copy of Applicant's PTO-1449 form submitted herewith.

Election/Restrictions

2. Applicants' amendment of February 27, 2007 has been entered in the file. Accordingly, claims 1-4 and 32-37 have been amended to change their dependency, claims 5-22 are currently withdrawn, and new claims 38-41 have been added.

Applicant's election **with traverse** of Group VI, claims 23-31, drawn to compounds of the formula of claim 23, and the specific compound "325"



in the reply filed on February 27, 2007 is acknowledged. The traversal is on the ground(s) that there is no undue burden on the Examiner to search for all of the claims, as they are believed to be in the same classification.

3. In view of Applicants' amendments and a fair interpretation of the claims, the restriction requirement between product Groups I, VI, and VII is withdrawn. Therefore claims 1-4 and 23-38 (including new claim 38, drawn to a pharmaceutical composition) are grouped together in new Group I for examination on the merits. However, the restriction requirement between

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product claims of Group I and method claims is maintained. The Examiner will combine Group III into Group II, such that claims 5-14 and new claims 40 and 41, drawn to methods of use, will be examined together. In addition, the Examiner will also combine Groups IV and V, claims 15-22 and new claim 39 into one group for examination. Thus, the new Restriction Requirement is as follows:

- I. Claims 1-4 and 23-28, drawn to compounds.
 - II. Claims 5-14, 40 and 41, drawn to methods of use in a cell.
 - III. Claims 15-22 and 39, drawn to methods of use in a human.
4. Applicants' traversal is not found persuasive because in accordance with the decisions in *In re Harnisch*, 631 F.2d 716, 206 USPQ 300 (CCPA 1980); and *Ex parte Hozumi*, 3 USPQ2d 1059 (Bd. Pat. App. & Int. 1984), restriction of a Markush group is proper where the compounds within the group either (1) do not share a common utility, or (2) do not share a substantial structural feature disclosed as being essential to that utility. In addition, a Markush group may encompass a plurality of independent and distinct inventions where two or more members are so unrelated and diverse that a prior art reference anticipating the claim with respect to one of the members would not render the other members obvious under 35 U.S.C. 103. The expression "special technical features" shall mean those technical features that define a contribution which each of the claimed inventions, considered as a whole, makes over the prior art. The 'special technical feature' must a) occupy a large portion of the core structure, or b) the 'special technical feature' constitutes a structurally distinctive portion, or c) where the structures are equivalent and therefore a recognized class of chemical compounds, each member could be substituted for one another with the same intended result. That is, with a common or equivalent structure, there is

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an expectation from knowledge in the art that all members will behave in the same way. Thus, the technical relationship and the corresponding special technical feature result from a common (or equivalent) structure that is responsible for the common activity (or property). Applicants' instant claims do not contain a 'special technical feature', since the compounds defined in the claims lack a significant structural element qualifying as the special technical feature that defines a contribution over the prior art. The compounds claimed contain an N-substituted-pyrrolidinone-4-phenyl moiety in common, which does not define a contribution over the prior art (**variables excluded**). Attached to the instant office action is a copy of a reference that provides that the technical feature, which can be taken as a whole amongst all the alternatives, as depicted above, is not a 'special technical feature', by failing to define a contribution over the prior art, as it was known in the art prior to the filing of the instant application. Please refer to the Keller et al and Bacher et al journal articles, which disclose the same "special technical feature," and supports the Examiner's position that Applicants' compounds fail to define a contribution over the prior art. Therefore, since the substituents on the technical feature vary extensively (for example, R₃ can be phenyl, pyridyl pyrimidyl, etc. which do not belong to the same classification) and when taken as a whole result in vastly different compounds and unity of inventions is considered to be lacking, such that restriction of the invention is considered to be proper. The requirement between products and methods is therefore made FINAL.

5. Applicant is reminded that upon the cancellation of claims to a non-elected invention, the inventorship must be amended in compliance with 37 CFR 1.48(b) if one or more of the currently named inventors is no longer an inventor of at least one claim remaining in the application. Any amendment of inventorship must be accompanied by a request under 37 CFR

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1.48(b) and by the fee required under 37 CFR 1.17(i).

Claim Rejections - 35 USC § 102

6. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

7. (a) Claims 1-4, 23-27 and 38 rejected under 35 U.S.C. 102(b) as being anticipated by WO 93/07141 to Bender et al. The WO document teaches N-substituted pyrrolidinone-4-phenyl compounds that are the same as those instantly claimed, please refer to compounds of formula (Ia) on page 9, wherein “R₁” is phenyl; “R₃” and “R₈” are hydrogen; “X” is “YR₂” wherein “Y” is O; “X₂” is O; *q* and *m* are O; and “A” is as defined (i.e. pyridyl, etc).

(b) Claims 1-4, 23-27 and 38 rejected under 35 U.S.C. 102(b) as being anticipated by Bacher et al, Bioorganic & Medicinal Chem. Letters. The journal article teaches N-substituted pyrrolidinone-4-phenyl compounds that are the same as those instantly claimed, please refer to compounds of formulae 2, 3, 4, 7 and 11, on pages 3229-3230, wherein “R” is hydrogen, -COOH, or -CO₂Me.

(c) Claims 1-4, 23-27 and 38 rejected under 35 U.S.C. 102(b) as being anticipated by Keller et al, Chem. Pharm. Bull. The journal article teaches N-substituted pyrrolidinone-4-phenyl compounds that are the same as those instantly claimed, please refer to compounds of formulae 4a, 4b, the compounds of Table 1 on page 1010, compounds of formulae 7, 19, 20, and 21 on pages 1010-1011, wherein “R,” “R₁” and “R₂” are as defined.

Claim Objections

8. Claims 28-37 are objected to as being dependent on a rejected base claim.

Conclusion

9. In conclusion, claims 1-41 are pending in the application, claims 5-22 and 39-41 are currently withdrawn from consideration as being non-elected, claims 1-4, 23-27 and 38 are rejected, and claims 28-37 are objected to.

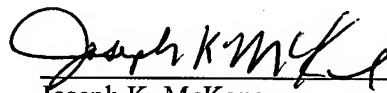
Telephone Inquiry

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Janet L. Coppins whose telephone number is 571.272.0680. The examiner can normally be reached on M-F 8:30-5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Joseph K. McKane can be reached on 571.272.0699. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Janet L. Coppins
April 23, 2007


Joseph K. McKane
SPE, Art Unit 1626